

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 353 Sulfat/Sulphate/Sulfate, Sample cuvette; 1/2

Revision date: 11.05.2021

Product code: LCK353-1

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

LCK 353 Sulfat/Sulphate/Sulfate, Sample cuvette; 1/2

UFI: VS35-6F5H-U800-S37J

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Water analysis

1.3. Details of the supplier of the safety data sheet

Company name: HACH LANGE GmbH
Street: Willstätterstr. 11
Place: D-40549 Düsseldorf
Telephone: +49 (0)211 5288-383
e-mail: SDS@hach.com
Internet: www.de.hach.com
Responsible Department: HACH LANGE Ltd.
5, Pacific Way
Salford Manchester M50 1DL - United Kingdom
Tel. +44 (0) 161 872 1487 * Fax +44 (0) 161 848 7324
e-Mail: info-uk@hach.com

HACH LANGE Ltd.
Unit 1, Chestnut Road Western Industrial Estate
IRL-Dublin 12
Tel. +353 (0)1 4602522
e-Mail: info-ie@hach.com

1.4. Emergency telephone number:

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Skin corrosion/irritation: Skin Corr. 1

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

May be corrosive to metals.

Causes severe skin burns and eye damage.

Causes serious eye damage.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

propan-1-ol; n-propanol

hydrochloric acid 1 %

Signal word: Danger

Pictograms:



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Hazard statements

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P390 Absorb spillage to prevent material damage.

Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures
Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
7732-18-5	Water			>90 %
	231-791-2			
56-81-5	Glycerol			1-2 %
	200-289-5			
	Skin Irrit. 2, Eye Irrit. 2; H315 H319			
71-23-8	propan-1-ol; n-propanol			< 1,5 %
	200-746-9	603-003-00-0	01-2119486761-29	
	Flam. Liq. 2, Eye Dam. 1, STOT SE 3; H225 H318 H336			
7647-01-0	hydrogen chloride			< 1 %
	231-595-7	017-002-00-2	01-2119484862-27	
	Acute Tox. 3, Skin Corr. 1A; H331 H314			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures
General information

Take off contaminated clothing and shoes immediately.
Show this safety data sheet to the doctor in attendance.

After inhalation

Move to fresh air.

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If symptoms persist, call a physician.

After contact with skin

Wash off immediately with plenty of water.

In the case of skin irritation or allergic reactions see a physician.

After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

After ingestion

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting.

Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

Irritation and corrosion

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

5.2. Special hazards arising from the substance or mixture

Fire may liberate hazardous vapours.

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Only qualified personnel equipped with suitable protective equipment may intervene. Immediately evacuate personnel to safe areas.

Do not breathe vapours, mist or gas. Ensure adequate ventilation.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local/national regulations (see section 13).

6.4. Reference to other sections

13. Disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas.

Advice on protection against fire and explosion

See also section 5

Further information on handling

Avoid contact with skin and eyes.

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7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep in a dry, cool place.

Hints on joint storage

None known.

7.3. Specific end use(s)

Reagent for analysis

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
56-81-5	Glycerol, mist	-	10		TWA (8 h)	WEL
7647-01-0	Hydrogen chloride (gas and aerosol mists)	1	2		TWA (8 h)	WEL
		5	8		STEL (15 min)	WEL
71-23-8	Propan-1-ol	200	500		TWA (8 h)	WEL
		250	625		STEL (15 min)	WEL

Additional advice on limit values

None known.

8.2. Exposure controls**Appropriate engineering controls**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Protective and hygiene measures

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Wash hands before breaks and after work.

Eye/face protection

Safety glasses with side-shields

Hand protection

Use barrier skin cream.

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374. In full contact:

Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: >480 min. In splash contact: Glove

material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: > 30 min

Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Skin protection

Remove and wash contaminated clothing before re-use.

Respiratory protection

Ensure adequate ventilation.

Environmental exposure controls

Do not flush into surface water or sanitary sewer system.

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SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	colourless
Odour:	odourless
pH-Value:	2

Changes in the physical state

Melting point:	not applicable
Initial boiling point and boiling range:	no data available
Sublimation point:	not applicable
Softening point:	not applicable
Pour point:	not applicable
:	no data available
Flash point:	no data available
Sustaining combustion:	No data available

Flammability

Solid:	no data available
Gas:	no data available

Explosive properties

no data available

Lower explosion limits:	no data available
Upper explosion limits:	no data available
Ignition temperature:	no data available

Auto-ignition temperature

Solid:	no data available
Gas:	no data available

Decomposition temperature:	no data available
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Oxidizing properties

no data available

Vapour pressure:	no data available
Vapour pressure:	no data available
Density:	1,02 g/cm ³
Bulk density:	no data available
Water solubility:	soluble

Solubility in other solvents

no data available

Partition coefficient:	no data available
Viscosity / dynamic:	no data available
Viscosity / kinematic:	no data available
Flow time:	no data available
Vapour density:	no data available
Evaporation rate:	no data available
Solvent separation test:	no data available
Solvent content:	no data available

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9.2. Other information

Solid content: no data available
Corrosive in contact with metals

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

Further information

None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

No toxicology information is available.

Acute toxicity

No data is available on the product itself.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
56-81-5	Glycerol				
	oral	LD50 mg/kg	12600	rat	Gestis
	dermal	LD50 mg/kg	> 18700	rabbit	IUCLID
7647-01-0	hydrogen chloride				
	inhalation vapour	ATE	3 mg/l		
	inhalation aerosol	ATE	0,5 mg/l		

Irritation and corrosivity

May cause eye irritation.

Sensitising effects

Contains no substance or substances classified as sensitising.

Carcinogenic/mutagenic/toxic effects for reproduction

Contains no ingredient listed as a carcinogen

STOT-single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

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STOT-repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

No aspiration toxicity classification

Specific effects in experiment on an animal

No data is available on the product itself.

Additional information on tests

no data available

Practical experience
Observations relevant to classification

no data available

Other observations

no data available

Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information
12.1. Toxicity

No data is available on the product itself.

Do not flush into surface water or sanitary sewer system.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
56-81-5	Glycerol					
	Acute fish toxicity	LC50 > 5000 mg/l	96 h	Carassius auratus (goldfish)		
	Acute algae toxicity	ErC50 > 10000 mg/l		Scenedesmus quadricauda (Green algae)	7 d	
	Acute bacteria toxicity	(>10000 mg/l)		Daphnia magna (Water flea)		

12.2. Persistence and degradability

No data is available on the product itself.

CAS No	Chemical name				
	Method	Value	d	Source	
	Evaluation				
56-81-5	Glycerol				
	Biological degradability, OECD Test Guideline 301	63%	14		
	Readily biodegradable, according to appropriate OECD test.				
	Biochemical Oxygen Demand (BOD)	870 mg/g	5		
	Chemical Oxygen Demand (COD)	1160 mg/g			

12.3. Bioaccumulative potential

No data is available on the product itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
56-81-5	Glycerol	-1,76

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12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

no data available

12.6. Other adverse effects

no data available

Further information

no data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

In accordance with local and national regulations.

Our local agencies will accept used cuvettes to ensure their proper disposal.

List of Wastes Code - residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - contaminated packaging

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

Land transport (ADR/RID)

<u>14.1. UN number:</u>	UN 3316
<u>14.2. UN proper shipping name:</u>	Chemical kit
<u>14.3. Transport hazard class(es):</u>	9
<u>14.4. Packing group:</u>	II
Hazard label:	9



Classification code:	M11
Special Provisions:	251 340
Limited quantity:	SP251
Excepted quantity:	SP340
Transport category:	2
Hazard No:	-
Tunnel restriction code:	E

Marine transport (IMDG)

<u>14.1. UN number:</u>	UN 3316
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14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
 Hazard label: 9



Marine pollutant: -
 Special Provisions: 251, 340
 Limited quantity: See SP251
 Excepted quantity: SP340
 EmS: F-A, S-P

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
 Hazard label: 9



Special Provisions: A44 A163
 Limited quantity Passenger: 1 kg
 Passenger LQ: Y960
 Excepted quantity: E0
 IATA-packing instructions - Passenger: 960
 IATA-max. quantity - Passenger: 10 kg
 IATA-packing instructions - Cargo: 960
 IATA-max. quantity - Cargo: 10 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Use personal protective equipment.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

Other applicable information

no data available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):
 Entry 3

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

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SECTION 16: Other information**Changes**

Revision: 11.05.2021

Safety datasheet sections which have been updated: 2, 4, 7, 9, 10

Revision: 11.02.2021

Safety datasheet sections which have been updated: 3

Revision: 05.03.2020

Safety datasheet sections which have been updated: 4, 11, 15

Revision: 23.04.2018

Safety datasheet sections which have been updated: 4, 7, 8, 16

Revision Date 20.03.2017

Safety datasheet sections which have been updated: 14

Revision: 28.07.2015

Safety datasheet sections which have been updated: 2, 4, 6, 8, 11, 13

Revision: 17.05.2013

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Skin Corr. 1; H314	On basis of test data
Eye Dam. 1; H318	On basis of test data

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

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LCK 353 Sulfat/Sulphate/Sulfate, LCK 353 A; 2/2

Revision date: 05.03.2020

Product code: LCK353-2

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

LCK 353 Sulfat/Sulphate/Sulfate, LCK 353 A; 2/2

Substance name: barium chloride
CAS No: 10361-37-2
Index No: 056-004-00-8
EC No: 233-788-1

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Water analysis

1.3. Details of the supplier of the safety data sheet

Company name: HACH LANGE GmbH
Street: Willstätterstr. 11
Place: D-40549 Düsseldorf
Telephone: +49 (0)211 5288-383
e-mail: SDS@hach.com
Internet: www.de.hach.com
Responsible Department: HACH LANGE Ltd.
5, Pacific Way
Salford Manchester M50 1DL - United Kingdom
Tel. +44 (0) 161 872 1487 * Fax +44 (0) 161 848 7324
e-Mail: info-uk@hach.com

HACH LANGE Ltd.
Unit 1, Chestnut Road Western Industrial Estate
IRL-Dublin 12
Tel. +353 (0)1 4602522
e-Mail: info-ie@hach.com

1.4. Emergency telephone number:

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Acute toxicity: Acute Tox. 3
Acute toxicity: Acute Tox. 4
Serious eye damage/eye irritation: Eye Irrit. 2
Hazardous to the aquatic environment: Aquatic Chronic 3
Hazard Statements:
Toxic if swallowed.
Harmful if inhaled.
Causes serious eye irritation.
Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

barium chloride

Signal word: Danger

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Pictograms:



Hazard statements

- H301 Toxic if swallowed.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
 P337+P313 If eye irritation persists: Get medical advice/attention.

Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

2.3. Other hazards

no data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
10361-37-2	barium chloride			100 %
	233-788-1	056-004-00-8		
	Acute Tox. 3, Acute Tox. 4, Eye Irrit. 2, Aquatic Chronic 3; H301 H332 H319 H412			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take off all contaminated clothing immediately.

After inhalation

Move to fresh air.
 If symptoms persist, call a physician.

After contact with skin

Wash off immediately with plenty of water.
 In the case of skin irritation or allergic reactions see a physician.

After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

After ingestion

Induce vomiting, but only if victim is fully conscious.

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Call a physician immediately.
Show this safety data sheet to the doctor in attendance.

4.2. Most important symptoms and effects, both acute and delayed

irritant effects, Toxic if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

5.2. Special hazards arising from the substance or mixture

Fire may liberate hazardous vapours.

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Use mechanical handling equipment.

6.4. Reference to other sections

13. Disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas.
Avoid dust formation.
Do not breathe dust.

Further information on handling

Do not get in eyes, on skin, or on clothing.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in a dry, cool place.
Keep locked up or in an area accessible only to qualified or authorised persons.

7.3. Specific end use(s)

Reagent for analysis

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
-	Barium compounds, soluble (as Ba)	-	0.5		TWA (8 h)	WEL

Additional advice on limit values

None known.

8.2. Exposure controls

Appropriate engineering controls

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Protective and hygiene measures

Wash hands before breaks and after work.

Smoking, eating and drinking should be prohibited in the application area.

Wash contaminated clothing before re-use.

Eye/face protection

Safety glasses with side-shields

Hand protection

Use barrier skin cream.

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374. In full contact:

Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: >480 min. In splash contact: Glove

material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: > 30 min

Consult your supplier if the material is to be used for special applications such as in the food industry or for hygiene, medical or surgical end-use.

Skin protection

Avoid contact with skin and clothing.

Respiratory protection

Do not breathe dust.

Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Breathing apparatus only if aerosol or dust is formed. Recommended Filter type: P 2

Environmental exposure controls

Should not be released into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	solid
Colour:	white
Odour:	odourless
pH-Value (at 20 °C):	5,2-8,2 (50g/l H ₂ O)

Changes in the physical state

Melting point:	963 °C
Initial boiling point and boiling range:	1560 °C
Sublimation point:	no data available
Softening point:	no data available
Pour point:	not applicable
:	no data available
Flash point:	not applicable

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Flammability

Solid: no data available

Gas: no data available

Explosive properties

no data available

Lower explosion limits: not applicable

Upper explosion limits: not applicable

Ignition temperature: no data available

Auto-ignition temperature

Solid: no data available

Gas: no data available

Decomposition temperature: > 100 °C

Oxidizing properties

no data available

Vapour pressure: no data available

Vapour pressure: no data available

Density (at 20 °C): 3,86 g/cm³

Bulk density: no data available

Water solubility:
(at 20 °C) 375 g/L**Solubility in other solvents**

no data available

Partition coefficient: not applicable

Viscosity / dynamic: not applicable

Viscosity / kinematic: not applicable

Flow time: not applicable

Vapour density: no data available

Evaporation rate: no data available

Solvent separation test: not applicable

Solvent content: not applicable

9.2. Other information

Solid content: not applicable

not applicable

SECTION 10: Stability and reactivity**10.1. Reactivity**

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Reacts with the following substances: Strong oxidizing agents, Reducing agents, Acids, Halogenated compounds

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.

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10.5. Incompatible materials

Acids
Strong oxidizing agents, Reducing agents

10.6. Hazardous decomposition products

Hydrogen chloride gas

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

No toxicology information is available.

Acute toxicity

Toxic if swallowed.
Harmful if inhaled.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
10361-37-2	barium chloride				
	oral	LD50 mg/kg	118	Rat	IUCLID
	inhalation vapour	ATE	11 mg/l		
	inhalation aerosol	ATE	1,5 mg/l		

Irritation and corrosivity

Causes serious eye irritation.
Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

Mutagenicity (in vitro mammalian cytogenetic test) negative
Not mutagenic in Ames Test.

Additional information on tests

Effects due to ingestion may include: Nausea, Pain, Circulatory collapse, Vertigo, Cardiac irregularities, Fatality

Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information**12.1. Toxicity**

Toxic effects on fish and plankton. Do not flush into surface water or sanitary sewer system.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
10361-37-2	barium chloride					
	Acute fish toxicity	LC50	870 mg/l	96 h	Leuciscus idus	IUCLID
	Acute crustacea toxicity	EC50	21,9 mg/l	48 h	Daphnia magna	IUCLID

12.2. Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

no data available

12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

no data available

12.6. Other adverse effects

no data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Our local agencies will accept used cuvettes to ensure their proper disposal.
In accordance with local and national regulations.

List of Wastes Code - residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:

UN 3316

14.2. UN proper shipping name:

Chemical kit

14.3. Transport hazard class(es):

9

14.4. Packing group:

II

Hazard label:

9



Classification code:

M11

Special Provisions:

251 340

Limited quantity:

SP251

Excepted quantity:

SP340

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Transport category: 2
Hazard No: -
Tunnel restriction code: E

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)

Not tested

Marine transport (IMDG)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
Hazard label: 9



Marine pollutant: --
Special Provisions: 251, 340
Limited quantity: See SP251
Excepted quantity: SP340
EmS: F-A, S-P

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
Hazard label: 9



Special Provisions: A44 A163
Limited quantity Passenger: 1 kg
Passenger LQ: Y960
Excepted quantity: E0
IATA-packing instructions - Passenger: 960
IATA-max. quantity - Passenger: 10 kg
IATA-packing instructions - Cargo: 960
IATA-max. quantity - Cargo: 10 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Use personal protective equipment.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

Other applicable information

These transport data apply to the entire pack

SECTION 15: Regulatory information

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15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Additional information

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D):

1 - slightly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

Revision Date 05.03.2020

Safety datasheet sections which have been updated: 2-4, 11, 15

Revision Date 20.03.2018

Safety datasheet sections which have been updated: 4, 7, 8, 11, 13

Revision Date 20.03.2017

Safety datasheet sections which have been updated: 14, 16

Revision: 26.04.2013

Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H412	Harmful to aquatic life with long lasting effects.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.